

LoRa Sensor Terminal

FST200



Introduction

FST200 series sensor terminal is a wireless data transmission terminal based on LoRa spread spectrum technology, which can meet the requirements of all kinds of sensor interface access data transmission terminal. The terminal adopts Four-Faith self-developed LoRa module with ultra-low power consumption design and built-in high-capacity lithium battery, which can be used for many years. It adopts IP67 high protection grade, waterproof and dustproof, which is designed for harsh environment monitoring applications. The terminal supports the Four-Faith private protocol and the standard LoRaWAN[®] protocol. The sensor is equipped with the Four-Faith sensor cloud platform and sensor cloud APP, which allows you to view sensor data, data analysis, data alarm, device management and so on at any time.



Industrial-grade Design

- ▶ High-performance industrial-grade chip and wireless LoRa module
- ▶ Adopt high precision sensor chip
- ▶ Using ABS+PC, anti-UV, flame retardant materials
- ▶ Protection level up to IP67



High Performance

- ▶ Ultra-low power design, built-in 19000mA ultra-large capacity lithium battery
- ▶ Support Four-Faith private protocol and standard LoRaWAN[®] protocol
- ▶ Quick NFC configuration and TYPE C interface configuration, easy to use
- ▶ Equipped with Four-Faith sensor cloud platform and sensor cloud APP
- ▶ Support NFC upgrade, local serial port upgrade, and remote upgrade
- ▶ Support wall mount, din-rail, pole-mounted installation

Sensor Terminal FST200



Product Specification

| Characteristics | |
|---|--|
| Items | Contents |
| Frequency | 433/470/868/915MHz |
| Protocol | Private protocol, LoRaWAN [®] protocol * |
| Indoor Communication Distance | Penetrates 10 floors |
| Outdoor Communication Distance | 5 Km |
| Operating Temperature | FST100-00XA: -20~+60°C (-4~+140°F) FST200-00XC :-35~+75°C (-31 ~ +167°F) |
| Power Supply Method | FST100-00xa: Built-in 3.6V/19000mAh lithium battery (Disposable) FST200-00xc: Supplies power from the DC power adapter. The default value is 12V/1.5A |
| Receiving Current | ≤ 10.5mA, (SF=9@20dBm) |
| Note: FST200-00XA/FST200-00XC, where X represents frequency band L and H, FST200-00XA low-power consumption product, FST200-00XC normal power consumption product; * means under development | |
| Power Consumption | |
| Items | Contents |
| Transmitting Current | FST200-00XA:<142mA@3.6V FST200-00XC:<69mA@12V |
| Receiving Current | FST200-00XA:<14.9mA@3.6V FST200-00XC:<7.2mA@12V |
| Sleep Mode Current | FST200-00XA:<14uA@3.6V |
| 3.3V Output Load | FST200-00XA:<100mA@3.6V |
| 12V Output Load | FST200-00XA:<80mA@3.6V |
| Note: 1, FST200-00 XA/FST200-00XC, where X represents the bandwidth H and L, FST200-00XA is low-power consumption product, FST200-00XC normal power consumption product. 2, 3.3V and 12V output load is single channel output load 3, Power test is without sensor test power consumption | |

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| Interfaces | | |
|------------|---------|--|
| No. | Content | Description |
| 1 | RX | RS232 Input |
| 2 | TX | RS232 Output |
| 3 | GND | Ground |
| 4 | B | RS485 Native |
| 5 | A | RS485 Positive |
| 6 | D2 | Digital signal input and output (0-3.3V) |
| 7 | D1 | Digital signal input and output (0-3.3V) |
| 8 | A2 | Current acquisition analog signal input (0-20mA), maximum 5V input |
| 9 | A1 | Voltage acquisition analog signal input (0-5V) |
| 10 | V3.3 | Output DC is 3.3V and the maximum current is 100mA |
| 11 | GND | Ground |
| 12 | V12 | Output DC 12V, maximum current 80mA |
| 13 | GND | Ground |
| 14 | CHARGE | The positive terminal of the adapter connects to this pin. The voltage range is 5 to 36V, 12V is recommended. Only applicable to FST200-00XC series product |

Note: PT100 interface is optional

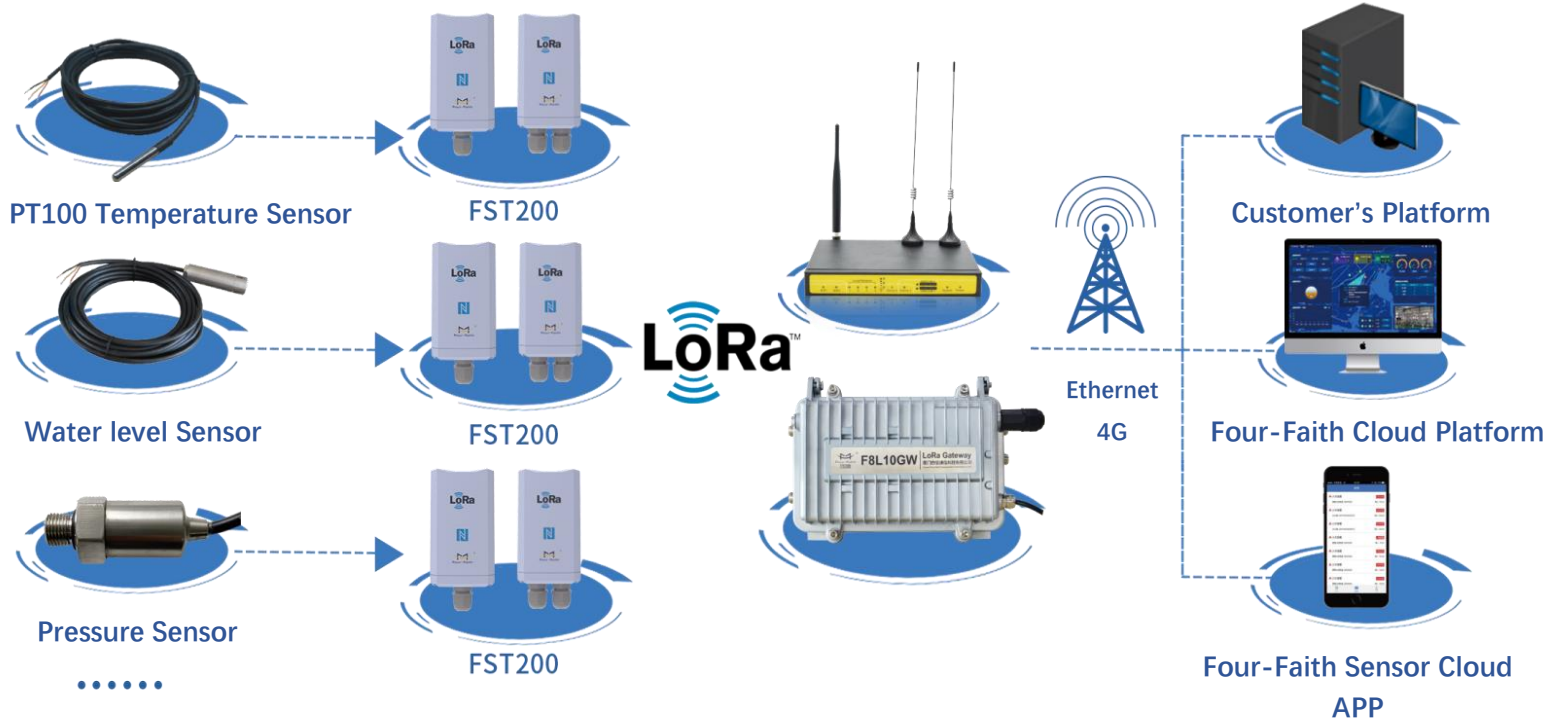
| Hardware | |
|----------|---|
| Item | Content |
| CPU | Industrial grade 32-bit communication processor |
| Flash | 128KB |
| SRAM | 16KB |

| Other | |
|------------------|---|
| Item | Content |
| Shell | PC+ABS material, anti-exposure, anti UV, anti-aging, impact resistance, protection grade IP67 |
| Dimension | 130x64x64mm (Excluding antenna and mounting parts) |
| Installation | Wall mount (Default), din-rail and pole-mount (Optional) |
| Flame Resistance | UL94V-0 |
| Weight | FST200-00XA: 280g FST200-00XC: 180g |

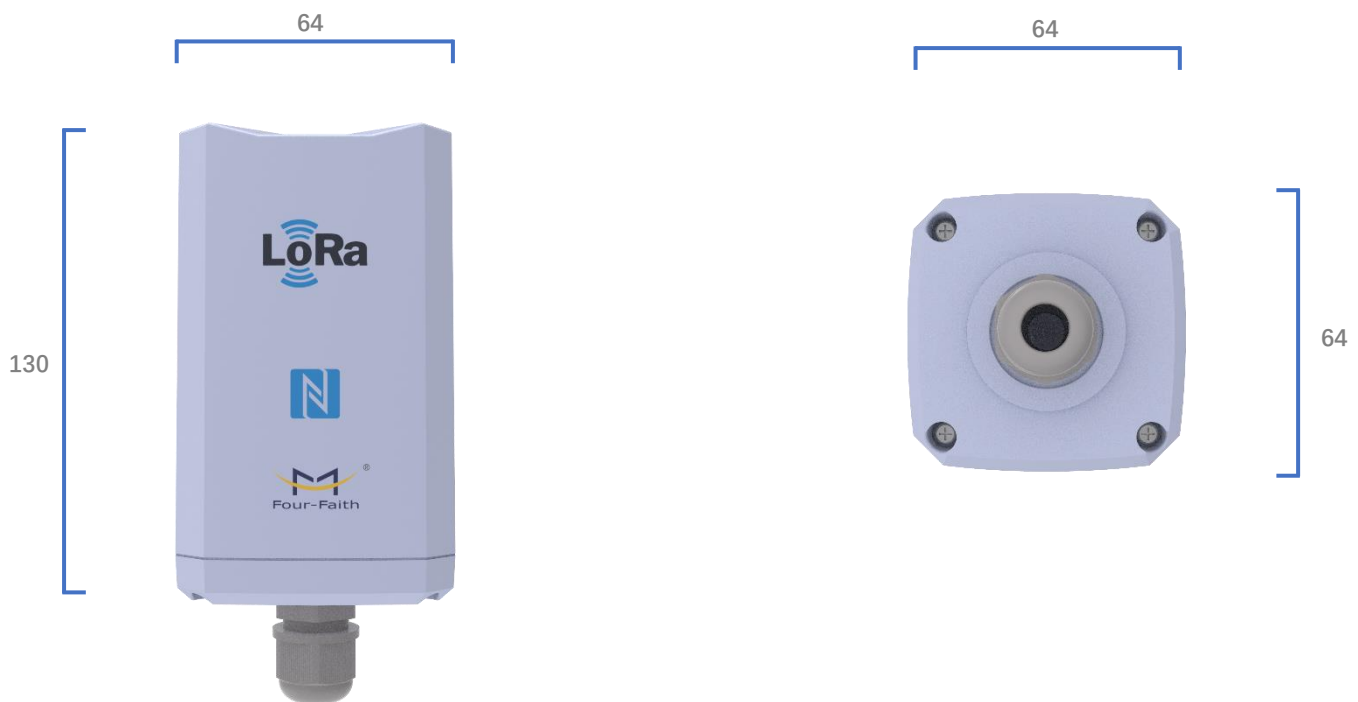
Sensor Terminal FST200



Topology



Dimension (mm)



Sensor Terminal FST200



Order Information

| Products | Frequency | Description |
|-------------|-------------|----------------------|
| FST200-00LA | 410-510 MHz | Battery Power Supply |
| FST200-00HA | 863-928 MHz | Battery Power Supply |
| FST200-00LC | 410-510 MHz | DC Power Supply |
| FST200-00HC | 863-928 MHz | DC Power Supply |